

WHAT IS CLAIMED IS:

1. A solar radiation concentrating apparatus,
5 comprising:

a plurality of reflectors for reflecting incident solar radiation, arranged in a reflector arrangement surface;

a plurality of reflector rotating members which are connected to the plurality of reflectors, respectively;

10 a center of rotation providing member which defines central points of respective rotational movements of the plurality of reflectors;

a moving member for collectively rotating the plurality of reflector rotating members; and

15 a guide member which guides the movements of the plurality of reflector rotating members, so that the plurality of reflector rotating members are rotated along respective prescribed reflector rotating member orbits, for concentrating the reflected solar radiation reflected from the plurality of reflectors to a prescribed
20 concentration region, wherein the moving member is moved with a prescribed moving member orbit in accordance with a variation of an incident angle of the incident solar radiation, and wherein a hole is bored through the moving member along a curve corresponding to a track which is drawn on the moving member by points of
25 intersection between the moving member being moved with the

prescribed moving member orbit and the plurality of reflector rotating members being moved with the respective prescribed reflector rotating member orbits.

2. The solar radiation concentrating apparatus according
5 to claim 1, wherein a guide groove having a prescribed shape for guiding the plurality of reflector rotating members with a slidable state is bored through the guide member.

3. The solar radiation concentrating apparatus
according to claim 1, further comprising a rotational mechanism,
10 wherein the rotational mechanism rotates the plurality of
reflectors, the plurality of reflector rotating members, the center
of rotation providing member, the moving member, and the guide
member around a straight line perpendicular to the reflector
arrangement surface so that a projection of the incident solar
15 radiation is caused to be parallel to a prescribed incident
direction indicating line defined in the reflector arrangement
surface.

4. The solar radiation concentrating apparatus according
to claim 1, wherein the moving member includes a link and a plurality
20 of rotational bodies which are collectively rotated by the link
and which rotate the plurality of reflector rotating members.

5. The solar radiation concentrating apparatus according
to claim 1, wherein the moving member is a flat board member.

6. The solar radiation concentrating apparatus according
25 to claim 1, further comprising a floating body.

7. A solar radiation concentrating apparatus, comprising:

a plurality of reflectors for reflecting incident solar radiation, arranged in a reflector arrangement surface;

5 a plurality of reflector rotating members which are connected to the plurality of reflectors, respectively;

a moving member for collectively rotating the plurality of reflector rotating members; and

a guide member which guides the movements of the plurality
10 reflector rotating members, so that the plurality of reflector rotating members are rotated along respective prescribed reflector rotating member orbits, for concentrating the reflected solar radiation reflected from the plurality of reflectors to a prescribed concentration region, wherein the moving member is moved with a
15 prescribed moving member orbit in accordance with a variation of an incident angle of the incident solar radiation.

8. In a method for concentrating solar radiation by a solar radiation concentrating apparatus including a plurality of reflectors arranged in a reflector arrangement surface and for
20 reflecting incident solar radiation, a plurality of reflector rotating members connected to the plurality of reflectors, respectively, a moving member for collectively rotating the plurality of reflector rotating members, and a guide member guiding the movements of the plurality of reflector rotating members so
25 that the plurality of reflector rotating members are rotated along

respective prescribed reflector rotating member orbits, for concentrating the reflected solar radiation reflected from the plurality of reflectors to a prescribed concentration region, the method for concentrating the solar radiation, comprising the steps

5 of:

rotating the solar radiation reflecting apparatus around a straight line perpendicular to the reflector arrangement surface so that the incident solar radiation is caused to be incident along a prescribed direction in the reflector arrangement surface; and

10 positioning the moving member to a prescribed position which is determined in accordance with an incident angle of the incident solar radiation.